

CERTIFICATE OF COMPLIANCE	NRCC-PRC-05-E
Commercial Refrigeration	(Page 1 of 5)
Project Name:	Date Prepared:

A. General Information

Building Area: Retail Food Store Conditioned Area $\geq 8,000 \text{ ft}^2$
 Retail Food Store Conditioned Area $< 8,000 \text{ ft}^2$

(Note: If the Retail Food Store Conditioned Area is $< 8,000 \text{ ft}^2$ then the Retail Food Store need not comply)

Phase of Construction: New Construction Addition Alteration

B. Mandatory Requirements

Are new condensers replacing existing condensers when:
 The attached compressor system total heat of rejection does not increase? Yes No
 Less than 25% of the attached compressors and the attached refrigerated display cases are new? Yes No

If Yes to both questions for all systems, the condenser(s) need not comply (exception §120.6(b)). Continue to page 3 or 4.

CONDENSER MANDATORY MEASURE	T-24 Sections	Indicate page reference for information on the plans or specification, or list information below					
Condenser ID or Tag (e.g. Cond-1)							
Continuously variable speed fans? Fan speed controlled in unison for all fans serving a common condenser high side?	§120.6(b)1A						
Saturated condensing temperature setpoint reset based on ambient dry bulb temperature for air-cooled condensers and ambient wet bulb temperature for evaporative condensers?	§120.6(b)1B,C						
Specify the minimum saturated condensing temperature setpoint. Complies if the minimum saturated condensing temperature setpoint $\leq 70^\circ\text{F}$.	§120.6(b)1D						
Minimum allowed condenser efficiency. Reference Table 120.6-C.	§120.6(b)1E						
Installed condenser specific efficiency from Section C .							
Is the installed condenser efficiency \geq the minimum allowed condenser efficiency?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exception 1 to §120.6(b)1E. Condenser with total heat rejection capacity of $< 150,000 \text{ Btuh}$ at the specific efficiency conditions.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exception 2 to §120.6(b)1E. Condenser operating in Climate Zone 1.		<input type="checkbox"/>					
Exception 3 to §120.6(b)1E. Existing condenser reused for an addition or alteration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Air-cooled Condenser Installed? If Yes then Fill Out Next 3 Rows	§120.6(b)1F						
Fin density (fins per inch). Complies if fin density ≤ 10 .							
Exception 1 to §120.6(b)1F. Condenser is a micro-channel condenser.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exception 2 to §120.6(b)1F. Existing condenser is being reused.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Existing compressor system reused? If Yes, the compressor system need not comply. Yes No
If Yes to both questions for all systems, the condensers need not comply (exception §120.6(b)). Continue to page 4 or 4.



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COMPRESSOR SYSTEM MANDATORY MEASURES	T-24 Sections	Indicate page reference for information on the plans or specification, or list information below					
Compressor System / Suction Group ID or Tag (e.g. Rack A)							
Saturated suction temperature setpoint reset based on the temperature requirements of the attached refrigeration display cases or walk-ins?	§120.6(b)2A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exception 1 to §120.6(b)2A. Single compressor system with no variable capacity capability.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exception 2 to §120.6(b)2A. Suction group with design saturated suction temperature (SST) ≥ 30°F.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exception 2 to §120.6(b)2A. Suction group comprises of the high stage of a two-stage or a cascade system.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exception 2 to §120.6(b)2A. Suction group serves the secondary cooling fluid (e.g. glycol) chiller.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design Saturated Suction Temperature (SST) ≤ -10°F and Suction Group Design Cooling Capacity Greater than 100,000 Btu/hr? If Yes then Fill Out the Next 3 Rows	§120.6(b)2B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subcooled liquid temperature at the exit of the subcooler. Complies if the temperature is ≤ 50°F.							
Specify the saturated suction temperature (SST) of the suction group doing the subcooling. Complies if SST ≥ 18°F.							
Exception 1 to §120.6(b)2B. Suction group is the low temperature suction group of a cascade system.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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REFRIGERATED DISPLAY CASES MANDATORY MEASURES	T-24 Sections	<i>Indicate page reference for information on the plans or specification, or list information below</i>		
Refrigerated Display Cases				
Lights in the refrigerated display cases and lights installed on walk-in glass doors automatically turned off during non-business hours, or reduced by 50% of lighting power within 30 minutes after the nearby area is vacated?	§120.6(b)3	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Exception 1 to §120.6(b)3. Retail Food Store is open for business for 140 hours or more per week.		<input type="checkbox"/>		
HEAT RECOVERY MANDATORY MEASURES	T-24 Sections	<i>Indicate page reference for information on the plans or specification, or list information below</i>		
Heat Recovery System ID or Tag (e.g. HR-1)				
Heat recovery of at least 25% of the sum of the total heat rejection of the refrigeration systems with > 150,000 Btuh individual total heat rejection at design conditions?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identify the page in plans showing the heat recovery calculations or attach the calculations to this form.	§120.6(b)4A			
Exception 1 to §120.6(b)4A. Retail Food Store located in Climate Zone 15.		<input type="checkbox"/>		
Exception 2 to §120.6(b)4A. Reused refrigeration and HVAC systems for an addition or alteration.				
Identify the page number in plans showing the charge increase calculations or attach the calculations to this from.				
<u>01</u> Specify the increase in refrigerant charge associated with heat recovery equipment and piping in lbs	§120.6(b)4B			
<u>02</u> Specify the total amount of heat recovery heating capacity in MBH [MBH = 1,000 Btuh]				
<u>03</u> <u>B01</u> / <u>B02</u> . Complies if <u>B03</u> < 0.35 lbs/MBH.				

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C-1. Fan-Powered Condenser Specific Efficiency Worksheet

EVAPORATIVE CONDENSER

Tag/ID	Fans				Pumps				Condenser		
	<u>A01</u>	<u>B02</u>	<u>C03</u>	<u>D04</u>	<u>E05</u>	<u>F06</u>	<u>G07</u>	<u>H08</u>	<u>I09</u>	<u>J10</u>	<u>K11</u>
	Motor Power (HP) ¹	Motor Efficiency	Motor Input Power (kW) 0.746 * <u>C01</u> / <u>C02</u>	Total Fan Power (kW)	Motor Power (HP)	Motor Efficiency	Motor Input Power (kW) 0.746 * <u>C05</u> / <u>C06F</u>	Total Pump Power (kW)	Capacity (MBH) ²	Total Input Power (kW) <u>C04</u> + <u>C08</u>	Specific Efficiency (Btuh/Watt) <u>C09</u> / <u>C10</u>
	Fan 1 ___ Fan 2 ___ Fan 3 ___	Fan 1 ___ Fan 2 ___ Fan 3 ___	Fan 1 ___ Fan 2 ___ Fan 3 ___		Pump 1 ___ Pump 2 ___	Pump 1 ___ Pump 2 ___	Pump 1 ___ Pump 2 ___				
	Fan 1 ___ Fan 2 ___ Fan 3 ___	Fan 1 ___ Fan 2 ___ Fan 3 ___	Fan 1 ___ Fan 2 ___ Fan 3 ___		Pump 1 ___ Pump 2 ___	Pump 1 ___ Pump 2 ___	Pump 1 ___ Pump 2 ___				

AIR-COOLED CONDENSER

Tag/ID	Fans				Condenser	
	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>
	Number of Fans	Motor Power (HP) ¹	Motor Efficiency	Total Input Power (Watts) 746 * <u>C01</u> * <u>C02</u> / <u>C03</u>	Capacity (Btuh) ²	Specific Efficiency (Btuh/Watt) <u>C05</u> / <u>C04</u>



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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/ HERS Certification Identification (if applicable):
City/State/Zip:	Phone:
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. 	
Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Address:	License:
City/State/Zip:	Phone:

NRCC-PRC-05-E User Instructions

This is the primary form for commercial refrigeration in retail food stores, which provides compliance information for the use of the enforcement agency’s field inspectors. This form must be included on the plans. A copy of this form should also be submitted to the enforcement agency along with the rest of the compliance submittal at the time of building permit application.

Project Description

PROJECT NAME is the title of the project, as shown on the plans and known to the enforcement agency.

PROJECT ADDRESS is the address of the project as shown on the plans and known to the enforcement agency.

DATE is the last revision date of the plans. If the plans are revised after this date, it may be necessary to re-submit the compliance documentation to reflect the altered design.

Note that it is the enforcement agency’s discretion whether to require new compliance documentation or not.

Section A. General Information

BUILDING AREA, the checkboxes are used to determine if the retail food store conditioned area is greater than or equal to 8,000 square feet. If the retail food store conditioned area is less than 8,000 square feet then the retail food store need not comply with the Commercial Refrigeration requirements.

PHASE OF CONSTRUCTION indicates the status of the building project described in the compliance documents. Refer to Section 1.7 for detailed discussion of the various choices.

1. NEW CONSTRUCTION should be checked for all new buildings, newly conditioned space or for new construction in existing buildings (tenant improvements, see Section 1.7.11 and 1.7.12) that are submitted for envelope compliance.
2. ADDITION should be checked for an addition which is not treated as a stand-alone building, but which uses option 2 described in Section 1.7.14. Tenant improvements that increase conditioned floor area and volume are additions.
3. ALTERATION should be checked for alterations to an existing building mechanical systems (see Section 1.7.13). Tenant improvements are usually alterations.

Section B. Mandatory Measures

The mandatory measures must be incorporated into the construction documents. Left column list the measures and the section numbers in the Building Efficiency Standards where the requirements for those measures are specified. The columns labeled *Indicate Page Reference on Plans or Schedule* are for designating the specific sheet on the plans or specification section(s) where the measures used to comply with the Standards are documented. In each column, the documentation author shall identify where each of the required measures are specified on the plans or in the project specifications. Where a measure is not applicable to the specific system, the letters “NA” (for not applicable) are placed in the cell. Groups of similar systems can be entered in a single column where appropriate.

Section C. Fan Power Condenser Specific Efficiency Worksheet

Evaporative Condensers

TAG/IT – is the system name or identifying number that corresponds to the mechanical schedule on the plans.

1. MOTOR POWER – is the nominal horsepower (hp) for an individual motor. If the manufacturer specifies the input power in kW, then skip to 3 and enter it there.
2. MOTOR EFFICIENCY – this value is taken from the manufacturer’s specifications
3. MOTOR INPUT POWER – this value is the reported input power in kW, as specified by the manufacturer or the calculated kW using the product of the motor power hp and conversion factor 0.746 and divided by the motor efficiency.
4. TOTAL FAN POWER – is the reported fan power in kW, as specified by the manufacturer.

5. MOTOR POWER – this is the nominal motor hp of the pump as specified by the manufacturer. If the manufacturer specifies the input power in kW, then skip to 7.
6. MOTOR EFFICIENCY – this value is taken from the manufacturer’s specifications.
7. MOTOR INPUT POWER - this value is the reported input power in kW, as specified by the manufacturer or the calculated kW using the product of the motor power hp and conversion factor 0.746 and divided by the motor efficiency.
8. TOTAL PUMP POWER – is the reported fan power in kW, as specified by the manufacturer.
9. CAPACITY – Enter the rated capacity of the condenser at 100 °F saturated condensing temperature and 70°F ambient wetbulp temperature.
10. TOTAL INPUT POWER – is the sum of 4 and 8
11. SPECIFIC EFFICIENCY – is the ratio of 9 and 10

Air Cooled Condensers

TAG/IT – is the system name or identifying number that corresponds to the mechanical schedule on the plans.

1. NUMBER OF FANS – indicate the number of fans
2. MOTOR POWER – is the nominal horsepower (hp) for an individual motor. If the manufacturer specifies the input power in kW, then skip to 3 and enter it there.
3. MOTOR EFFICIENCY – this value is taken from the manufacturer’s specifications
4. MOTOR INPUT POWER – this value is the reported input power in kW, as specified by the manufacturer or the calculated kW using the product of the number of fans, motor power hp and conversion factor 0.746 and divided by the motor efficiency.
5. CAPACITY – Enter the rated capacity of the condenser at 100 °F saturated condensing temperature and 70°F ambient wetbulp temperature.
6. SPECIFIC EFFICIENCY – is the ratio of 5 and 4

Documentation Author’s Declaration Statement

The CERTIFICATE OF COMPLIANCE is signed by both the Documentation Author and the Principal Designer who is responsible for preparation of the plans of building. This latter person is also responsible for the energy compliance documentation, even if the actual work is delegated to a different person acting as Documentation Author. It is necessary that the compliance documentation be consistent with the plans.

DOCUMENTATION AUTHOR is the person who prepared the energy compliance documentation and who signs the Declaration Statement. The person’s telephone number is given to facilitate response to any questions that arise. A Documentation Author may have additional certifications such as a Certified Energy Analyst or a Home Energy Rating System certification number. Enter number in the CEA# or HERS# box.

Declaration Statement of Principle Designer

The Declaration Statement is signed by the person responsible for preparation of the plans for the building and the documentation author. This principal designer is also responsible for the energy compliance documentation, even if the actual work is delegated to someone else (the Documentation Author as described above). It is necessary that the compliance documentation be consistent with the plans. The Business and Professions Code governs who is qualified to prepare plans and therefore to sign this statement. See Section 2.2.2 Permit Application for applicable text from the Business and Professions Code.